

CLAIMS

1. An adsorption filter for fuel vapors from the tank container in particular of an internal combustion engine in particular of a motor vehicle, said filter being regenerable by desorptive countercurrent backflushing and in which the adsorptive and/or desorptive filter material cooperates with heat-storing substances, characterized in that the heat-storing substances are comprised of phase change material (PCM material = phase change material) (7', 7'') and are distributed in small units within the reactive filter material.
2. The adsorption filter according to Claim 1, characterized in that it has different phase change limits with regard to temperature in the direction of flow through the PCM materials.
3. The adsorption filter according to Claim 1 or 2, characterized in that the temperature values of the phase change limits in the adsorption function increase downstream from the filter.
4. The adsorption filter according to any one of the preceding claims, characterized in that downstream from at least two filter areas with PCM material, there are different phase change limits with regard to the temperature.
5. The adsorption filter according to any one of the preceding claims, characterized in that

phase change materials having different phase change temperatures are present at the same time in an end area downstream from the adsorption filter.

6. The adsorption filter according to any one of the preceding claims,  
characterized in that  
small particles of phase change material are combined to form larger units that are held together mechanically.
7. The adsorption filter according to Claim 6,  
characterized in that  
the larger units contain filler material having a good thermal conductivity.
8. The adsorption filter according to Claim 6 or 7,  
characterized in that  
the individual components in the larger units are held together by binders.